

(12) PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. **AU 200065501 B2**
(10) Patent No. **771847**

(54) Title
Gaming machine with buy feature games

(51)⁶ International Patent Classification(s)
G06F 019/00 A63F 013/00
A63F 005/04 G07F 017/34

(21) Application No: **200065501**

(22) Application Date: **2000.08.23**

(87) WIPO No: **WO01/15055**

(30) Priority Data

| | | |
|----------------|-------------------|--------------|
| (31) Number | (32) Date | (33) Country |
| PQ 2428 | 1999.08.25 | AU |

(43) Publication Date : **2001.03.19**

(43) Publication Journal Date : **2001.05.24**

(44) Accepted Journal Date : **2004.04.01**

(71) Applicant(s)
Aristocrat Technologies Australia Pty Ltd

(72) Inventor(s)
Natalie Bryant; Nicholas Luke Bennett

(74) Agent/Attorney
F B Rice and Co,605 Darling Street,BALMAIN NSW 2041

(56) Related Art
US 6113492
CA 2199826
US 5704835

65501/00

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
1 March 2001 (01.03.2001)

PCT

(10) International Publication Number
WO 01/15055 A1(51) International Patent Classification⁷: G06F 19/00 // 161:00, A63F 5/04, 13/00, G07F 17/34

(72) Inventors; and

(75) Inventors/Applicants (for US only): BRYANT, Natalie [AU/AU]; 71 Longueville Road, Lan Cove, NSW 2066 (AU). BENNETT, Nicholas, Luke [AU/AU]; 71 Longueville Road, Lane Cove, NSW 2066 (AU).

(21) International Application Number: PCT/AU00/00997

(22) International Filing Date: 23 August 2000 (23.08.2000)

(25) Filing Language: English

(74) Agent: F B RICE & CO; 605 Darling Street, Balmain, NSW 2041 (AU).

(26) Publication Language: English

(81) Designated States (national): AU, JP, NZ, US, ZA.

(30) Priority Data: PQ 2428 25 August 1999 (25.08.1999) AU

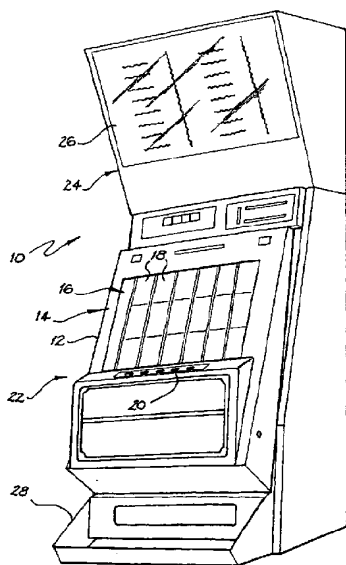
Published:

— With international search report.

(71) Applicant (for all designated States except US): ARIS-TOCRAT TECHNOLOGIES AUSTRALIA PTY LTD [AU/AU]; 71 Longueville Road, Lane Cove, NSW 2066 (AU).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GAMING MACHINE WITH BUY FEATURE GAMES



(57) Abstract: A gaming machine (10) includes a display (14). The display (14) includes a plurality of display positions (18) for displaying combinations of symbols. A controller controls operation of the machine. The controller includes a processor for processing data and displaying selected data on the display (14). A selecting arrangement (20) is operable by the player of the machine (10) for enabling the player to select at least one feature which can be added to a basic game played on the machine (10).

WO 01/15055 A1

WO 01/15055

PCT/AU00/00997

Gaming machine with buy feature games

Field of the Invention

5 The present invention relates to a gaming machine. More particularly,
the invention relates to a gaming machine of the type known as a slot
machine or a fruit machine. Certain types of these machines have a series of
rotatable reels, each of which displays a series of symbols or a video
simulation of such a mechanism while other types of machines are arranged
to play video simulations of card games or other types of wagering games,
10 such as bingo or keno. The invention has particular application to an
improved game played on such a machine.

Background to the Invention

15 Players regularly playing gaming machines need to have their interests
maintained. Therefore, it is necessary for manufacturers of these machines
to develop inventive game features which add interest to the games provided
on such machines in order to keep the players entertained and willing to
continue to play the games.

20 There is a continuous trade-off between what the players of the
machines want and what the operators of the machines want from the
machines. Naturally, operators want the players to stake more money per
game so that the overall turnover is higher. Conversely, players will not do
this unless they feel that they are getting more for the extra money that they
are betting.

25 Further, as the range of machines and games increases, it is becoming
increasingly important to offer more options to the players. The more
options that are available in one machine, the easier it is to maintain the
player's interest and the easier it is for players to be able to gain access to a
machine that will offer them exactly the game that they want.

30 To date, most types of video gaming machines which are available to
players offer limited options. At best, a range of bet sizes and paylines upon
which the players can bet are offered. Certain machines also offer a double-
up option available after a win while other machines have various ranges of
paytables particularly for higher bets.

35

Summary of the Invention

According to a first aspect of the invention there is provided a gaming machine which includes:

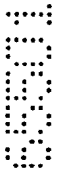
- a display means including a plurality of display positions for displaying combinations of symbols;
- a control means for controlling operation of the machine, the control means including a processing means for processing data and displaying selected data on the display means; and
- a selecting means operable by a player of the machine for enabling the player to select at least one feature which can be added to a base game played on the machine, an additional wager being staked by the player in order to be eligible for said at least one feature, there being no guarantee that a benefit provided by the feature will eventuate merely by having staked the additional wager.

In this aspect of the invention, only one additional feature or a range of the same type of feature may be offered and the additional wager staked by the player may be a multiple of a base bet wagered by the player. Different multiples of the base bet may purchase different features of that type. For example, a bet X2 feature may purchase two free spins, a bet X3 feature may purchase four free spins and bet X4 feature may purchase six free spins.

According to a second aspect of the invention, there is provided a gaming machine which includes

- a display means including a plurality of display positions for displaying combinations of symbols;
- a control means for controlling operation of the machine, the control means including a processing means for processing data and displaying selected data on the display means; and
- a selecting means operable by a player of the machine for enabling the player to select at least one feature which can be added to a base game played on the machine, an additional wager being staked by the player in order to be eligible for said at least one feature being a fixed amount multiplied by a bet wagered per line (for a spinning reel game) or per draw (for a card game) there being no guarantee that a benefit provided by the feature will eventuate merely by having staked the additional wager.

The base game may have no features at all. For example, in the case of a video simulation of a spinning reel game, there would be no scatter symbol or substitute symbol or feature triggered by the occurrence of a predetermined or random event. Instead, by means of the selecting means, the player may be able to select at least one



and, preferably, a range of features that can be added to the base game to tailor the base game to the player's requirements. Various features may be offered. For example, certain symbols may be selected to pay as scatter symbols or substitute symbols as well as or in addition to the standard pays. Other examples include additional types of pays, for example, right to left as well as the basic left to right pay or bonus features such as free games, bonus pays, etc which are triggered by certain combinations.

Certain features may be offered as no-cost features which are selected by the player by means of the selecting means with certain of the other features requiring the staking of an additional wager or bet. If desired, the bet to obtain one or more features may be independent of the type or size of bet made on the base game. Thus, it is not necessary for the maximum bet to be placed on the base game before access can be gained to the range of features. In addition, the cost for the various features may differ depending on the type of feature or range of features selected.

The selecting means may include a plurality of selectors, such as buttons on the midtrim, operable by the player to select the feature required before making the base bet. One of the buttons may be used by the player when only the base bet is to be staked.

Only one feature, if any, at a time may be selectable by the player by means of the selectors. For example, a standard bet with no additional feature may be wagered, or a bet with only one type of feature may be wagered.

As there is no guarantee that the feature will eventuate merely by having staked the additional wager, the player will not necessarily see a direct result of the extra stake for every game played. For example, a predetermined combination may need to appear to trigger the special feature (eg. free spins) or to pay a bonus prize (eg a right to left pay).

The feature for which the additional wager is staked may be triggered independently of the base game. In other words, a random selection is made by the control means as to whether or not to trigger the feature completely independently of the base game.

Further, the gaming machine may be a multi-game machine having various games. Then, the appropriate game may initially be chosen and, thereafter, the required feature or features for the game may be selected by the player.

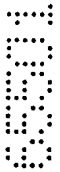
The selecting means may include dedicated keys or buttons on a keypad of the gaming machine and/or a touch or interactive screen of the display mean for enabling the features and/or games to be selected.

According to a third aspect of the invention, there is provided a gaming machine which includes

a display means including a plurality of display positions for displaying combinations of symbols;

5 a control means for controlling operation of the machine, the control means including a processing means for processing data and displaying selected data on the display means; and

a selecting means, including a plurality of selectors operable by a player of the machine for enabling the player prior to making a base bet, for selecting a range of
10 features to be added to the base game played on the machine to enable the player to tailor the game to the player's requirements, there being no guarantee that a benefit provided by any of the selected features will eventuate merely by having made the selection.



Brief Description of Drawings

The invention is now described by way of example with reference to the accompanying diagrammatic drawings in which:

- Figure 1 shows a three dimensional view a gaming machine;
5 Figure 2 shows a block diagram of a control means of the gaming machine;
Figure 3 shows a schematic plan representation of one embodiment of a keypad of the gaming machine;
Figure 4 shows a schematic representation of a first screen of the
10 gaming machine;
Figure 5 shows a schematic representation of a second screen of the gaming machine;
Figure 6 shows a schematic representation of one embodiment of a third screen of the gaming machine;
15 Figure 7 shows a schematic representation of another embodiment of the third screen of the gaming machine; and
Figure 8 shows a schematic plan representation of another embodiment of a keypad of the gaming machine; and
Figure 9 shows a flow chart of the operation of the embodiment of the
20 invention described with reference to Figure 8.

Detailed description of the Drawings

- In Figure 1, reference numeral 10 generally designates a gaming machine, including a game, in accordance with the invention. The machine
25 10 includes a gaming console 12 having a video display unit 14. The video display unit includes a screen 16 on which reels 18 are simulated. A keypad 20, which is shown in greater detail in Figure 3 of the drawings, is mounted on a midtrim 22 of the machine 10.

- The machine includes a topbox 24 on which a paytable 26 is arranged.
30 Referring now to Figure 2 of the drawings, a control means 30 of the machine 10 is illustrated. A program which implements the game and user interface is run on a processor 32 of the control means 30. The processor 32 forms part of a controller 34 which drives the screen 16 of the video display unit 14. The processor 32 receives input signals from a first group of sensors
35 36.1 which are responsive to keys of the keypad 20. A second group of

WO 01/15055

PCT/AU00/00997

5

sensors 36.2 are touch sensors associated with the screen 16 of the video display unit 14.

The controller 34 also receives input pulses from a mechanism 38 indicating that a player has provided sufficient credit to begin playing. The mechanism 38 may be a coin input chute, a bill collector, a credit card reader, any other type of validation device, or a combination thereof.

The controller 34 also controls a payout mechanism 40 which, for example, may be a coin hopper for feeding coins to a coin tray 28 of the machine 10.

With the game of the gaming machine 10, a player playing the machine 10 has the option to make a bet that is a multiple of a base bet to buy an additional feature to the game. The additional bet need not be a multiple of the specified maximum bet of the machine 10. Thus, the player is allowed to, for example, double or treble their initial bet to be eligible for an additional game feature. In this way, even players who bet a single credit on one line (on a multi-line game), are eligible to buy features, by doubling or trebling their bets.

The extra bet that the player is required to make does not make any change to the game the player has bought other than to introduce eligibility to the feature. In other words, no additional pay lines are bought or linear increases made to the pay table as the extra bet is a dedicated bet towards the feature.

Referring now to Figure 3 of the drawings a modified keypad 20 for the machine is shown. Instead of, or in addition, to the touch screen facility in the screen 16 of the video display unit 14 of the machine 10, dedicated buttons 64 are provided on the keypad 20.

The keypad 20 has a conventional array of buttons 66 for enabling the player to select the number of lines of the machine on which to achieve a payout as well as a conventional array of buttons 68 for enabling the player to select the number of credits to be bet per line.

A "base bet" is represented by the buttons 68 labelled "Bet x credits per line" and the buttons 66 labelled "Play x lines". The feature of the game is that if a player stakes double the base bet by means of button 64.1 then, whenever a specified combination of symbols is spun up, certain reel positions will be held while the rest of the reels are spun again twice for free. For triple the base bet (button 64.2) the same combination would result in

WO 01/15055

PCT/AU00/00997

6

four free spins and for quadruple the base bet (button 64.3) there would be six free spins. Thus, if the player is betting two credits per line on five lines then the base bet will be ten credits. If the player chooses to buy access to the four free spins feature by selecting the "four feature spins (bet x 3)"
5 button 64.2 then a game will cost the player thirty credits. The payline prizes will still only be multiplied by the player's bet per line of two credits, and prize combinations will still only apply on the five lines that have been bought. However, the additional feature of a specified combination of symbols awarding four re-spins of some of the reels will apply. Accordingly,
10 it will be noted that only the base bet or the base bet plus the additional credit for one type of feature may be wagered at any one time. Also, the mere wagering of the additional credit does not guarantee that the feature will occur. The wagering of the additional credit only provides eligibility for the applicable feature.

15 It will be appreciated that various other options could be provided by means of the appropriate number of buttons 64 on the keypad 20.

In this embodiment, other examples which are possible are, inter alia, the additional feature may be the purchase of a certain combination which, if obtained, will commence a free game series. Instead, an additional feature
20 trigger symbol may be purchased so that, in addition to an original trigger symbol, the additional trigger symbol also provides a free spin feature. Yet further, a right-to-left payout feature, in addition to the more conventional left-to-right payout can be bought.

To ensure versatility, the player may be given a choice of which
25 features the player wishes to buy. Then, various icons are displayed on the screen as will now be described with reference to Figures 4 to 7 of the drawings. In Figure 4, a basic game screen is shown and is designated generally by the reference numeral 50. The game screen has the usual reels 18 and multi-line pays as indicated by the arrows 52. If the player touches
30 the icon "Prizes" as indicated at 54, a screen 56 shown in Figure 5 of the drawings is displayed to show what prizes are available to the player. By touching the icon 58 entitled "Features" either a screen 60 as shown in Figure 6 of the drawings or a screen 62 as shown in Figure 7 of the drawings is displayed. The screens 60 and 62 are similar with the difference between the
35 screens being that, in the case of the screen illustrated in Figure 7 of the

WO 01/15055

PCT/AU00/00997

7

drawings, the bet to be made by the player is independent of the type of feature altogether.

5 The screen in Figure 6 or 7 allows the players to select the features required. The various icons illustrated as representations of the screens in Figures 6 and 7 are largely self explanatory. Suffice to say that a player can select various available options to construct their own games at a cost which that player can afford. The cost may be relative to an aspect of the base bet, ie the bet made for the basic game, or independent of the base bet. In addition, the player may be able to nominate the amount they wish to pay for eligibility to a particular feature.

10 In addition, in this embodiment, various features may be offered by the machine 10 such as, for example, certain combinations of a particular symbol triggering a bonus mode where for the next 10 games each symbol of another type that appears pays a bonus. As a further example, a bought feature could be that a particular symbol acts as a substitute symbol for all other symbols or pays for scattered combinations instead of just on a pay line. Hence, it will be appreciated that a large number of features could be built into the machine 10 to be offered to the players. By the player increasing his or her initial bet, eligibility to the feature is gained.

20 Referring now to Figure 8 of the drawings, a keypad 20 in accordance with another embodiment of the invention is illustrated. With reference to Figure 3 of the drawings, like reference numerals refer to like parts, unless otherwise specified.

25 In this embodiment of the invention, instead of the buttons 64, a selection button 70 is provided.

In this embodiment of the invention, the player is required to make a special bet in order to be eligible for the feature. The feature, in this embodiment is the applicant's Mr Cashman. Mr Cashman is a trademark of the applicant and is described in detail in our co-pending PCT Application Number PCT/AU99/01059 dated 26 November 1999 and entitled "Player information delivery". The contents of PCT/AU99/01059 are specifically incorporated herein by reference. The selection of the Mr Cashman feature is by way of the selection button 70. If the player chooses not to play the Mr Cashman feature, then bets are made in the standard way using the standard buttons 66 and 68.

WO 01/15055

PCT/AU00/00997

8

The Mr Cashman feature is, as illustrated, restricted to the maximum number of lines available for the game configuration. Thus, in the example illustrated, the Mr Cashman feature is provided when the player selects that feature and also elects to play the maximum number of lines being 20 lines.

5 By selecting the feature using the button 70, the player will be eligible to enter the Mr Cashman feature for that game.

The extra cost involved for eligibility to the Mr Cashman feature will be five credits multiplied by the number of credits bet per line. Hence, in the illustrated example, the player must stake 25 credits multiplied by the bet
10 per line in order to be eligible for the Mr. Cashman feature. Once again, the mere wagering of the additional credit does not guarantee that the feature will occur but only that the player is eligible for the feature. The Mr. Cashman feature is not triggered by any trigger condition in the base game. Rather, a random selection is made by the controller 34 completely
15 independently of the base game to determine whether the Mr. Cashman feature is to be triggered or not.

In other words, the player first makes a bet per line using the button 68 and then selects the number of lines to be played using buttons 66 or, where the player desires to include the Mr Cashman feature, the player activates the
20 button 70.

Then, for each game played with the extra feature, the player will have a predetermined probability of triggering the Mr Cashman feature to commence after the base game has been completed.

Accordingly, by means of the invention a more versatile gaming
25 machine 10 is provided which provides players with a greater number of options. In so doing, it is believed that the machines 10 will become more attractive to players.

It will be appreciated by persons skilled in the art that numerous
30 variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive.

EDITORIAL NOTE

APPLICATION NUMBER - 65501/00

This specification does not contain a page 9.

CLAIMS:

1. A gaming machine which includes
 - a display means including a plurality of display positions for displaying combinations of symbols;
- 5 a control means for controlling operation of the machine, the control means including a processing means for processing data and displaying selected data on the display means; and
 - a selecting means operable by a player of the machine for enabling the player to select at least one feature which can be added to a base game played on the machine, an additional wager being staked by the player in order to be eligible for said at least one feature, there being no guarantee that a benefit provided by the feature will eventuate merely by having staked the additional wager.
- 10 2. The gaming machine of claim 1 in which the additional wager staked by the player is a multiple of a base bet wagered by the player.
- 15 3. The gaming machine of claim 2 in which different multiples of the base bet purchase different features.
4. The gaming machine of any one of the preceding claims in which the selecting means includes a plurality of selectors operable by the player to select said at least one feature before making the base bet.
- 20 5. The gaming machine of any one of the preceding claims in which the feature is triggered independently of the base game.
6. The gaming machine of any one of the preceding claims in which the selecting means enables a player to select a range of features to enable the player to tailor the game to the player's requirements.
- 25 7. The gaming machine of claim 6 in which certain of the features are no-cost features while other features require the staking of an additional wager by the player.
8. The gaming machine of any one of the preceding claims which is a multi-game machine having various games, the selecting means being used by the player to select one of the games as the base game.
- 30 9. The gaming machine of any one of the preceding claims in which the selecting means includes dedicated buttons on a keypad of the control means.
10. The gaming machine of any one of the preceding claims in which the selecting means includes touch sensors of a touch screen of a display means.
11. A gaming machine which includes
 - 35 a display means including a plurality of display positions for displaying combinations of symbols;



a control means for controlling operation of the machine, the control means including a processing means for processing data and displaying selected data on the display means; and

a selecting means operable by a player of the machine for enabling the player to
 5 select at least one feature which can be added to a base game played on the machine, an additional wager staked by the player in order to be eligible for said at least one feature being a fixed amount multiplied by a bet wagered per line or per draw, there being no guarantee that a benefit provided by the feature will eventuate merely by having staked the additional wager.

10 12. The gaming machine of claim 11 in which the selecting means includes a plurality of selectors operable by the player to select the feature required before making a base bet.

13. The gaming machine of claim 11 or claim 12, in which the feature is triggered independently of the base game.

15 14. The gaming machine of any one of claims 11 to 13 inclusive, in which the selecting means enables a player to select a range of features to enable the player to tailor the game to the player's requirements.

15. The gaming machine of claim 14 in which certain of the features are no-cost features while other features require the staking of an additional wager by the player.

20 16. The gaming machine of any one of claims 11 to 15 inclusive, which is a multi-game machine having various games, the selecting means being used by the player to select one of the games as the base game.

17. The gaming machine of any one of claims 11 to 16 inclusive, in which the selecting means includes dedicated buttons on a keypad of the control means.

25 18. The gaming machine of any one of claims 11 to 17 inclusive, in which the selecting means includes touch sensors of a touch screen of a display means.

19. A gaming machine which includes
 a display means including a plurality of display positions for displaying combinations of symbols;

30 a control means for controlling operation of the machine, the control means including a processing means for processing data and displaying selected data on the display means; and

a selecting means, including a plurality of selectors operable by a player of the machine for enabling the player prior to making a base bet, for selecting a range of
 35 features to be added to a base game played on the machine to enable the player to tailor

the game to the player's requirements, there being no guarantee that a benefit provided by any of the selected features will eventuate merely by having made the selection.

20. A gaming machine as claimed in any one of claims 1, 11 and 19 and substantially as described herein with reference to the accompanying drawings.

5

Dated this twenty-third day of January 2004

Aristocrat Technologies Australia Pty Ltd
Patent Attorneys for the Applicant:

10

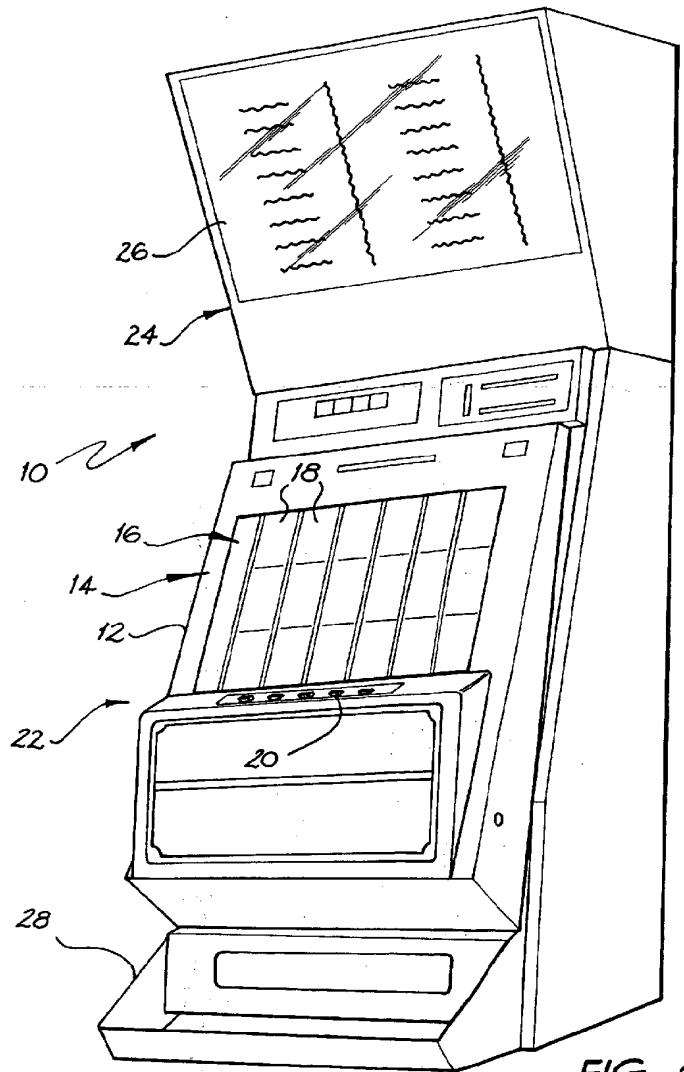
F B RICE & CO

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
1011
1012
1013
1014
1015
1016
1017
1018
1019
1020
1021
1022
1023
1024
1025
1026
1027
1028
1029
1030
1031
1032
1033
1034
1035
1036
1037
1038
1039
1040
1041
1042
1043
1044
1045
1046
1047
1048
1049
1050
1051
1052
1053
1054
1055
1056
1057
1058
1059
1060
1061
1062
1063
1064
1065
1066
1067
1068
1069
1070
1071
1072
1073
1074
1075
1076
1077
1078
1079
1080
1081
1082
1083
1084
1085
1086
1087
1088
1089
1090
1091
1092
1093
1094
1095
1096
1097
1098
1099
1100
1101
1102
1103
1104
1105
1106
1107
1108
1109
1110
1111
1112
1113
1114
1115
1116
1117
1118
1119
1120
1121
1122
1123
1124
1125
1126
1127
1128
1129
1130
1131
1132
1133
1134
1135
1136
1137
1138
1139
1140
1141
1142
1143
1144
1145
1146
1147
1148
1149
1150
1151
1152
1153
1154
1155
1156
1157
1158
1159
1160
1161
1162
1163
1164
1165
1166
1167
1168
1169
1170
1171
1172
1173
1174
1175
1176
1177
1178
1179
1180
1181
1182
1183
1184
1185
1186
1187
1188
1189
1190
1191
1192
1193
1194
1195
1196
1197
1198
1199
1200
1201
1202
1203
1204
1205
1206
1207
1208
1209
1210
1211
1212
1213
1214
1215
1216
1217
1218
1219
1220
1221
1222
1223
1224
1225
1226
1227
1228
1229
1230
1231
1232
1233
1234
1235
1236
1237
1238
1239
1240
1241
1242
1243
1244
1245
1246
1247
1248
1249
1250
1251
1252
1253
1254
1255
1256
1257
1258
1259
1260
1261
1262
1263
1264
1265
1266
1267
1268
1269
1270
1271
1272
1273
1274
1275
1276
1277
1278
1279
1280
1281
1282
1283
1284
1285
1286
1287
1288
1289
1290
1291
1292
1293
1294
1295
1296
1297
1298
1299
1300
1301
1302
1303
1304
1305
1306
1307
1308
1309
1310
1311
1312
1313
1314
1315
1316
1317
1318
1319
1320
1321
1322
1323
1324
1325
1326
1327
1328
1329
1330
1331
1332
1333
1334
1335
1336
1337
1338
1339
1340
1341
1342
1343
1344
1345
1346
1347
1348
1349
1350
1351
1352
1353
1354
1355
1356
1357
1358
1359
1360
1361
1362
1363
1364
1365
1366
1367
1368
1369
1370
1371
1372
1373
1374
1375
1376
1377
1378
1379
1380
1381
1382
1383
1384
1385
1386
1387
1388
1389
1390
1391
1392
1393
1394
1395
1396
1397
1398
1399
1400
1401
1402
1403
1404
1405
1406
1407
1408
1409
1410
1411
1412
1413
1414
1415
1416
1417
1418
1419
1420
1421
1422
1423
1424
1425
1426
1427
1428
1429
1430
1431
1432
1433
1434
1435
1436
1437
1438
1439
1440
1441
1442
1443
1444
1445
1446
1447
1448
1449
1450
1451
1452
1453
1454
1455
1456
1457
1458
1459
1460
1461
1462
1463
1464
1465
1466
1467
1468
1469
1470
1471
1472
1473
1474
1475
1476
1477
1478
1479
1480
1481
1482
1483
1484
1485
1486
1487
1488
1489
1490
1491
1492
1493
1494
1495
1496
1497
1498
1499
1500
1501
1502
1503
1504
1505
1506
1507
1508
1509
1510
1511
1512
1513
1514
1515
1516
1517
1518
1519
1520
1521
1522
1523
1524
1525
1526
1527
1528
1529
1530
1531
1532
1533
1534
1535
1536
1537
1538
1539
1540
1541
1542
1543
1544
1545
1546
1547
1548
1549
1550
1551
1552
1553
1554
1555
1556
1557
1558
1559
1560
1561
1562
1563
1564
1565
1566
1567
1568
1569
1570
1571
1572
1573
1574
1575
1576
1577
1578
1579
1580
1581
1582
1583
1584
1585
1586
1587
1588
1589
1590
1591
1592
1593
1594
1595
1596
1597
1598
1599
1600
1601
1602
1603
1604
1605
1606
1607
1608
1609
1610
1611
1612
1613
1614
1615
1616
1617
1618
1619
1620
1621
1622
1623
1624
1625
1626
1627
1628
1629
1630
1631
1632
1633
1634
1635
1636
1637
1638
1639
1640
1641
1642
1643
1644
1645
1646
1647
1648
1649
1650
1651
1652
1653
1654
1655
1656
1657
1658
1659
1660
1661
1662
1663
1664
1665
1666
1667
1668
1669
1670
1671
1672
1673
1674
1675
1676
1677
1678
1679
1680
1681
1682
1683
1684
1685
1686
1687
1688
1689
1690
1691
1692
1693
1694
1695
1696
1697
1698
1699
1700
1701
1702
1703
1704
1705
1706
1707
1708
1709
1710
1711
1712
1713
1714
1715
1716
1717
1718
1719
1720
1721
1722
1723
1724
1725
1726
1727
1728
1729
1730
1731
1732
1733
1734
1735
1736
1737
1738
1739
1740
1741
1742
1743
1744
1745
1746
1747
1748
1749
1750
1751
1752
1753
1754
1755
1756
1757
1758
1759
1760
1761
1762
1763
1764
1765
1766
1767
1768
1769
1770
1771
1772
1773
1774
1775
1776
1777
1778
1779
1780
1781
1782
1783
1784
1785
1786
1787
1788
1789
1790
1791
1792
1793
1794
1795
1796
1797
1798
1799
1800
1801
1802
1803
1804
1805
1806
1807
1808
1809
1810
1811
1812
1813
1814
1815
1816
1817
1818
1819
1820
1821
1822
1823
1824
1825
1826
1827
1828
1829
1830
1831
1832
1833
1834
1835
1836
1837
1838
1839
1840
1841
1842
1843
1844
1845
1846
1847
1848
1849
1850
1851
1852
1853
1854
1855
1856
1857
1858
1859
1860
1861
1862
1863
1864
1865
1866
1867
1868
1869
1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
2047
2048
2049
2050
2051
2052
2053
2054
2055
2056
2057
2058
2059
2060
2061
2062
2063
2064
2065
2066
2067
2068
2069
2070
2071
2072
2073
2074
2075
2076
2077
2078
2079
2080
2081
2082
2083
2084
2085
2086
2087
2088
2089
2090
2091
2092
2093
2094
2095
2096
2097
2098
2099
2100
2101
2102
2103
2104
2105
2106
2107
2108
2109
2110
2111
2112
2113
2114
2115
2116
2117
2118
2119
2120
2121
2122
2123
2124
2125
2126
2127
2128
2129
2130
2131
2132
2133
2134
2135
2136
2137
2138
2139
2140
2141
2142
2143
2144
2145
2146
2147
2148
2149
2150
2151
2152
2153
2154
2155
2156
2157
2158
2159
2160
2161
2162
2163
2164
2165
2166
2167
2168
2169
2170
2171
2172
2173
2174
2175
2176
2177
2178
2179
2180
2181
2182
2183
2184
2185
2186
2

WO 01/15055

1 / 9

PCT/AU00/00997



SUBSTITUTE SHEET (RULE 26)
ISA / US

FIG. 1

WO 01/15055

2 / 9

PCT/AU00/00997

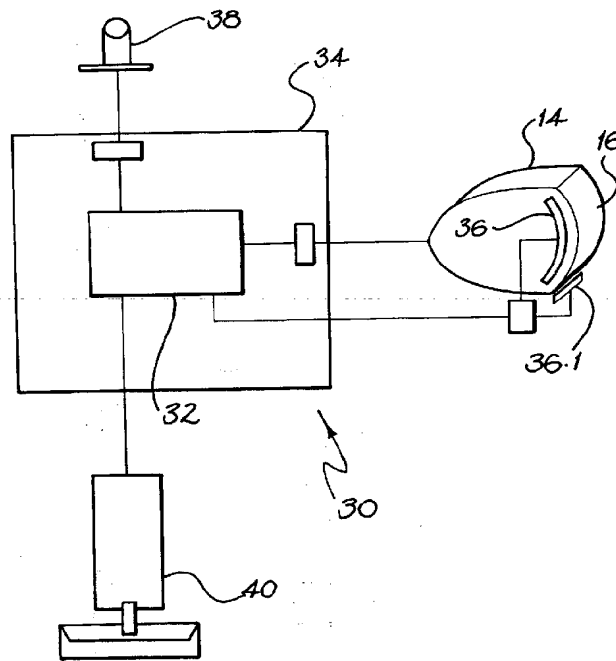


FIG. 2

Substitute Sheet
(Rule 26) RO/AU

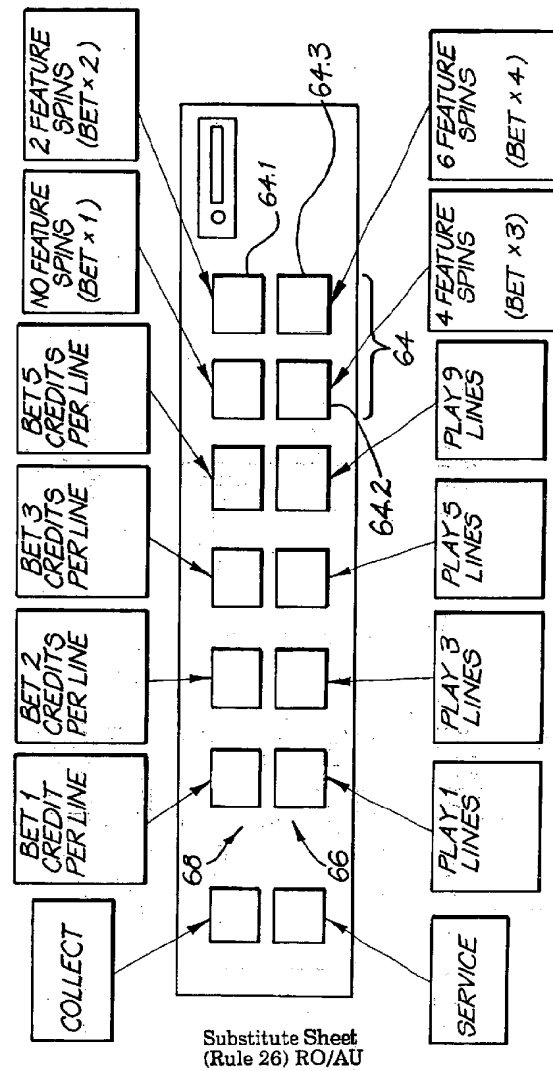


FIG. 3

WO 01/15055

4 / 9

PCT/AU00/00997

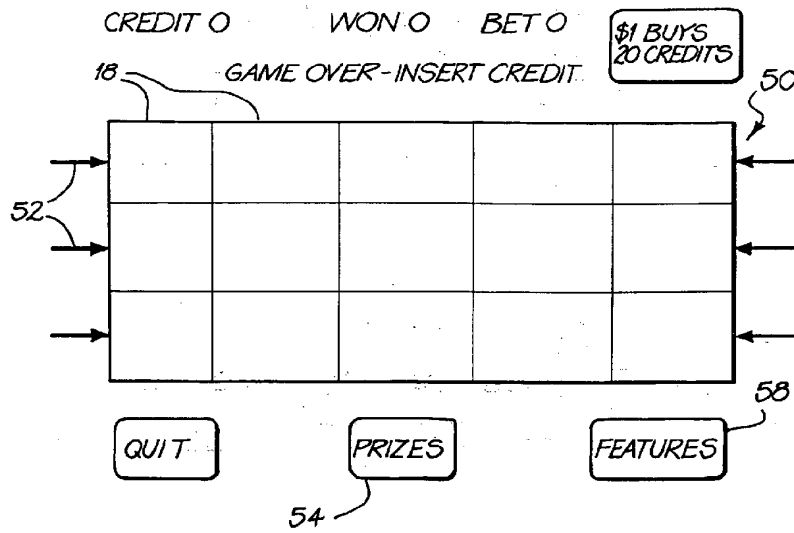


FIG. 4

Substitute Sheet
(Rule 26) RO/AU

WO 01/15055

5 / 9

PCT/AU00/00997

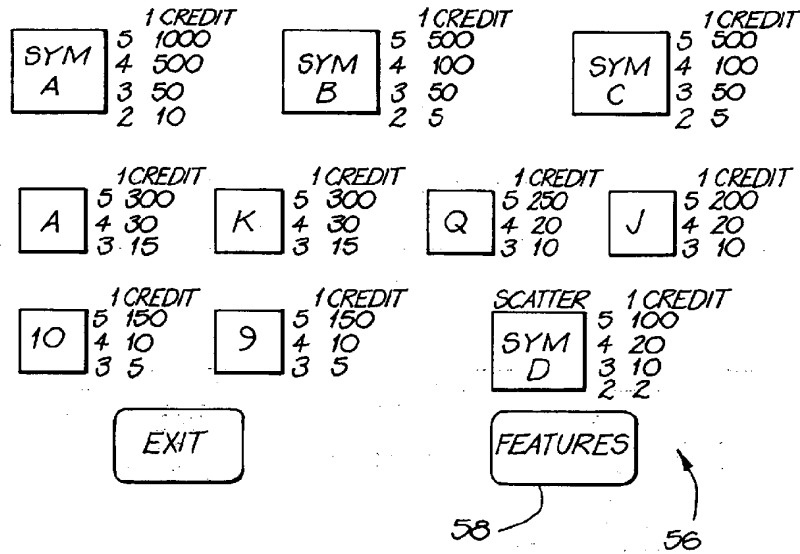


FIG. 5

Substitute Sheet
(Rule 26) RO/AU

WO 01/15055

6 / 9

PCT/AU00/00997

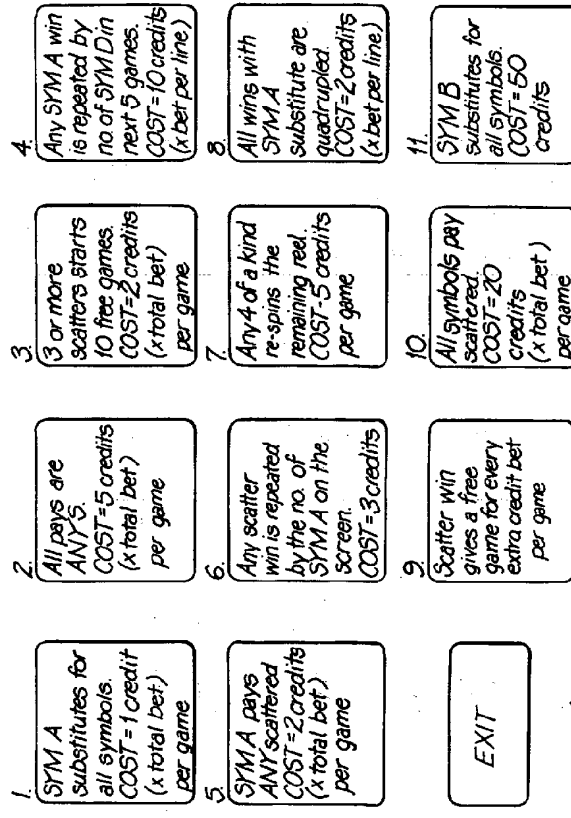


FIG. 6

60

Substitute Sheet
(Rule 26) RO/AU

WO 01/15055

7 / 9

PCT/AU00/00997

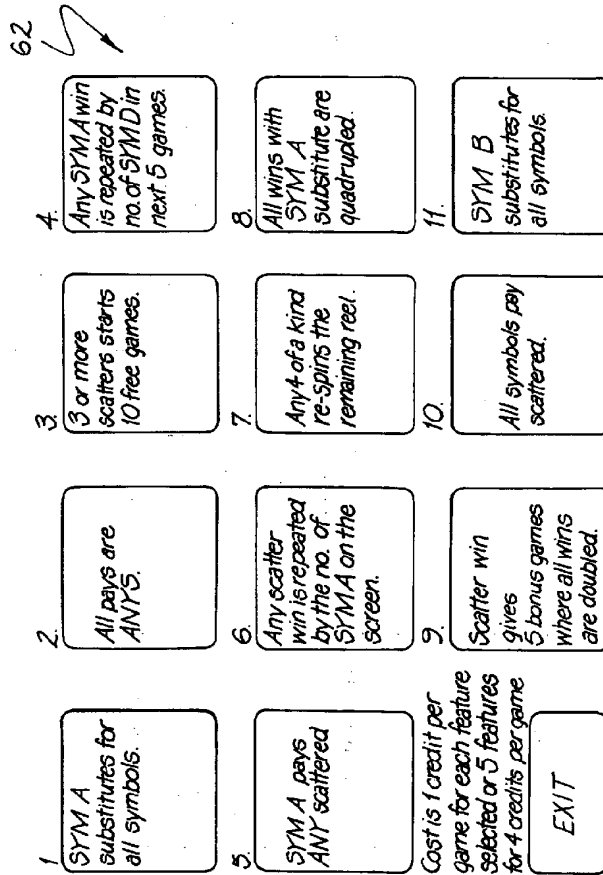


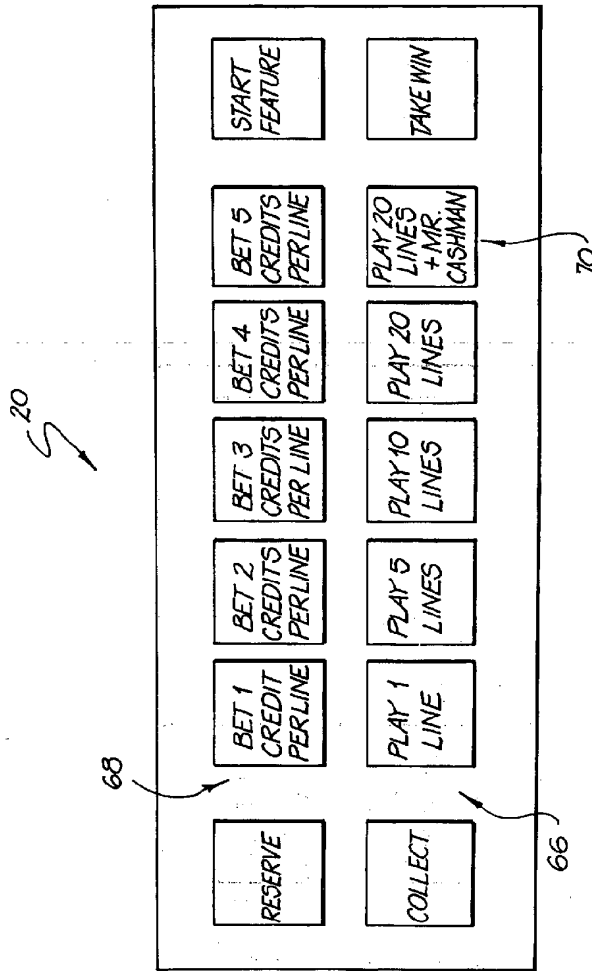
FIG. 7

Substitute Sheet
(Rule 26) RO/AU

WO 01/15055

8 / 9

PCT/AU00/00997



Substitute Sheet
(Rule 26) RO/AU

WO 01/15055

9 / 9

PCT/AU00/00997

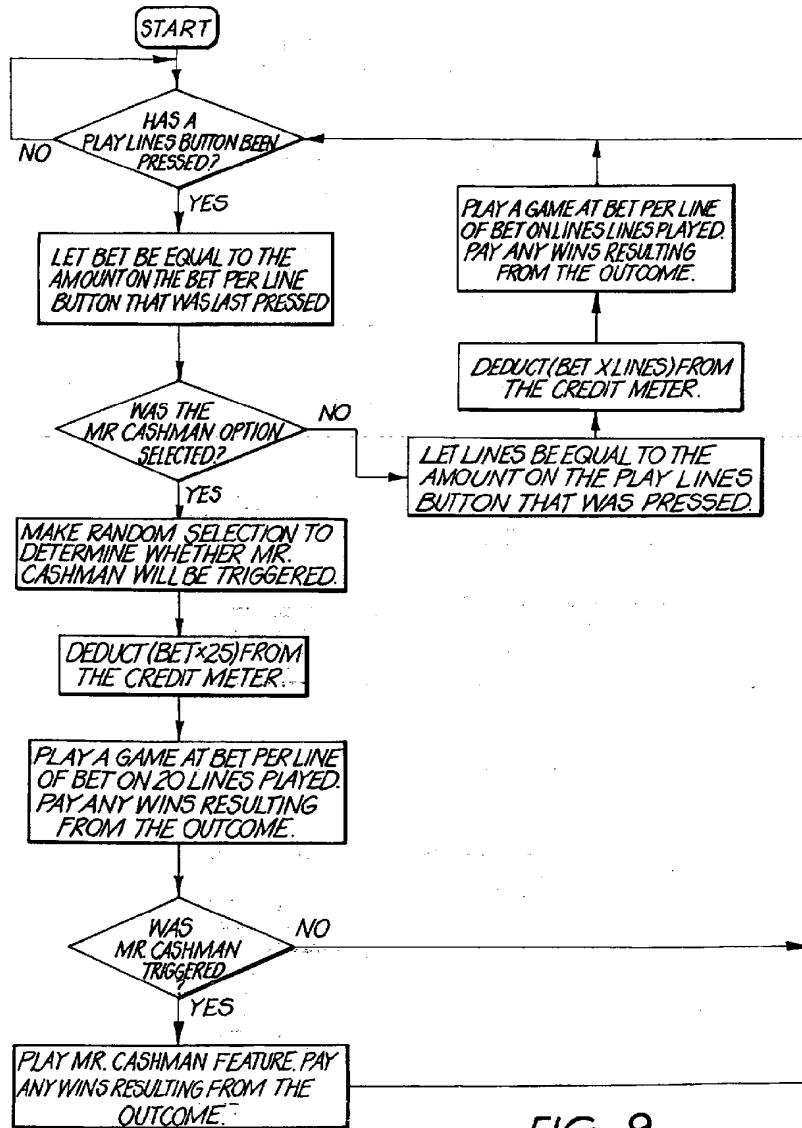


FIG. 9

Substitute Sheet (Rule 26)
ISA/US